RCA

7V7

SHARP-CUTOFF PENTODE

7V7

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage	6.3□	ac or dc volts
Current	0.45□□	amp

Direct Interelectrode Capacitances:○

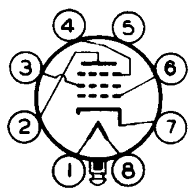
Grid No.1 to Plate	0.004 max.	μμf
Input	9.5	μμf
Output	6.5	μμf

○ With external shield connected to cathode.

Mechanical:

Mounting Position	Any
Maximum Overall Length	2-25/32"
Maximum Seated Length	2-1/4"
Maximum Diameter	1-3/16"
Bulb	T-9
Base	Lock-in 8-Pin
Basing Designation for BOTTOM VIEW	8V

Pin 1 - Heater
Pin 2 - Plate
Pin 3 - Grid No.2
Pin 4 - Grid No.3
Pin 5 - Internal Shield



Pin 6 - Grid No.1
Pin 7 - Cathode
Pin 8 - Heater

Plug - Base Shell

AMPLIFIER - Class A_1

Maximum Ratings, *Design-Center Values*:

PLATE VOLTAGE	300 max.	volts
GRID-No.2 (SCREEN) VOLTAGE	150 max.	volts
GRID-No.2 SUPPLY VOLTAGE	300 max.	volts
PLATE DISSIPATION	4 max.	watts
GRID-No.2 DISSIPATION	0.8 max.	watt
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode	90 max.	volts
Heater positive with respect to cathode	90 max.	volts

Typical Operation and Characteristics:

	*Condition I**	*Condition II***	
Plate Voltage	300	300	volts
Grid No.3 (Suppressor)	Connected to cathode at socket		
Internal Shield	Connected to cathode at socket		
Grid-No.2 Supply-Voltage#	150	300	volts
Grid-No.2 Resistor	-	40000	ohms
Min. Cathode-Bias Resistor	160	160	ohms

□ Nominal voltage = 7.0 volts. □□ Nominal current = 0.48 ampere.

*,**,#: See next page.

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Plate Current.	10	10	ma
Grid-No.2 Current. . .	3.9	3.9	ma
Plate Resistance . . .	0.3	0.3	megohm
Transconductance . . .	5800	5800	μmhos
Grid-No.1 Bias (Approx.) for plate current of 10 μa.	-8	-16	volts

* Condition I with fixed grid-No.2 supply gives a sharp-cutoff characteristic.

** Condition II with series grid-No.2 resistor gives an extended-cutoff characteristic.

\# When grid-No.2 supply voltage in excess of 150 volts is used, a series grid-No.2 resistor must be used to limit grid-No.2 voltage to 150 volts when the plate current is at its normal value of 10 ma.

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GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage.	6.3□	ac or dc volts
Current.	0.45□□	amp

Direct Interelectrode Capacitances:○

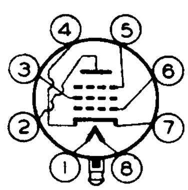
Grid No.1 to Plate . .	0.0025 max.	μμf
Input.	9.5	μμf
Output	7	μμf

○ With external shield connected to cathode.

Mechanical:

Mounting Position.	Any
Maximum Overall Length	2-25/32"
Maximum Seated Length.	2-1/4"
Maximum Diameter	1-3/16"
Bulb	T-9
Base	Lock-in 8-Pin
Basing Designation for BOTTOM VIEW	8BJ

Pin 1 - Heater
Pin 2 - Plate
Pin 3 - Grid No.2
Pin 4 - Cathode
Pin 5 - Grid No.3, Internal Shield



Pin 6 - Grid No.1
Pin 7 - Cathode
Pin 8 - Heater
Plug - Base Shell

Maximum Ratings, Typical Operation, and Characteristics are the same as for Type 7V7

□ Nominal voltage = 7.0 volts. □□ Nominal current = 0.48 ampere.

JUNE 15, 1948 DATA

TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY